

35,028

Rec'd PCT/PTO

11 MAY 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
27 May 2004 (27.05.2004)

PCT

(10) International Publication Number  
**WO 2004/044947 A2**

- (51) International Patent Classification<sup>7</sup>: **H01L**
- (21) International Application Number:  
PCT/IL2003/000967
- (22) International Filing Date:  
13 November 2003 (13.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
60/426,182 14 November 2002 (14.11.2002) US
- (71) Applicant (for all designated States except US): **BRAINS-GATE LTD.** [IL/IL]; P.O. Box 2249, 43101 Ra'anana (IL).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **GROSS, Yossi** [IL/IL]; 10 HaNotea Street, 73160 Moshav Mazor (IL). **SHALEV, Alon** [IL/IL]; 9 Wingate Street, 43587 Ra'anana (IL). **KEREN, Avraham** [IL/IL]; 98 Tabak Street, 71908 Macabim-Reut (IL).
- (74) Agents: **SANFORD T. COLB & CO.** et al.; P.O. Box 2273, 76122 Rehovot (IL).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

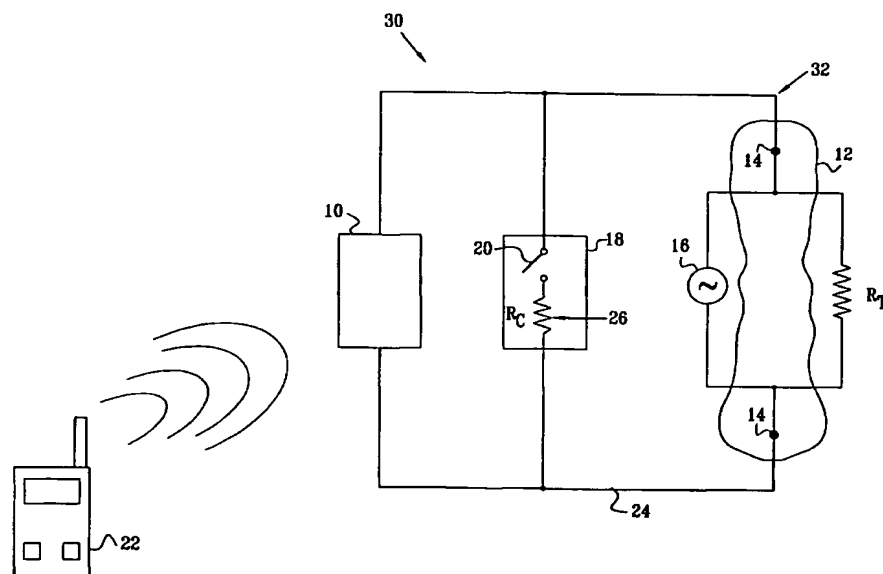
(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **STIMULATION CIRCUITRY AND CONTROL OF ELECTRONIC MEDICAL DEVICE**



(57) **Abstract:** Apparatus is provided for use with an implanted medical device (30) having two conductive elements (14) in contact with tissue (12) of a subject. The apparatus comprises a shunt (18), electrically coupled between the conductive elements (14), the shunt (18) adapted to be in a first state when the subject is exposed to a source of radiofrequency (RF) energy, and adapted to be in a second state when the subject is not exposed to the RF energy, the shunt (18) being characterized such that in the first state the shunt (18) has a first impedance, and in the second state the shunt (18) has a second impedance at least two times greater than the first impedance.

WO 2004/044947 A2